

**Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application.

**Listing of Claims:**

1-35. (Canceled)

36. (Currently Amended) The method of claim 50, 59, 64, 66, 68, or 94, wherein the at least one proton pump inhibitor compound is a substituted benzimidazole, a substituted quinoline, a substituted pyrimidine, a substituted thiadiazole, a substituted sulfinylnicotinamide, a substituted thienoimidazole, or a substituted imidazopyridine.

37. (Currently Amended) The method of claim 36, wherein the substituted benzimidazole is omeprazole, lansoprazole, pantoprazole, rabeprazole, leminoprazole, timoprazole, tenatoprazole, disulprazole, esomeprazole, 2-(2-benzimidazolyl)-pyridine, a tricyclic imidazole, a thienopyridine benzimidazole, a fluoroalkoxy substituted benzimidazole, a dialkoxy benzimidazole, a N-substituted 2-(pyridylalkenesulfinyl) benzimidazole, a cycloheptenepyridine, a 5-pyrrolyl-2-pyridylmethylsulfinyl benzimidazole, a alkylsulfinyl benzimidazole, a fluoro-pyridylmethylsulfinyl benzimidazole, an imidazo(4,5-b)pyridine, imidazo(4,5-b)pyridine, RO 18-5362 or IY 81149; wherein the substituted quinoline is a 4-amino-3-carbonyl quinoline, a 4-amino-3-acylnaphthyride, a 4-aminoquinoline, a 4-amino-3-acylquinoline or a 3-butyryl-4-(2-methylphenylamino)-8-(2-hydroxyethoxy)quinoline; wherein the substituted pyrimidine is a substituted quinazoline, a tetrahydroisoquinolin-2-yl pyrimidine or YH 1885; wherein the substituted thiadiazole is 3-substituted 1,2,4-thiadiazolo(4,5-a) benzimidazole or a 3-substituted imidazo(1,2-d)-thiadiazole; wherein the substituted sulfinylnicotinamide is a 2-sulfinylnicotinamide; wherein the substituted thienoimidazole is a pyridylsulfinylbenzimidazole, a pyridylsulfinyl thieno imidazole, a theinoimidazole-toluidine, a 4,5-dihydrooxazole, a thienoimidazole-toluidine or Hoe-731; wherein the substituted imidazopyridine is a imidazo(1,2-a)pyridine, a pyrrolo(2,3-b)pyridine or a pharmaceutically acceptable salt thereof.

38. (Previously Presented) The method of claim 37, further comprising administering a pharmaceutically acceptable carrier.

39. (Currently Amended) The method of claim 50, 59, 64, 66, 68, or 94, wherein the compound that donates, transfers or releases nitric oxide, induces the production of endogenous

nitric oxide or endothelium-derived relaxing factor, stimulates endogenous synthesis of nitric oxide or is a substrate for nitric oxide synthase is an S-nitrosothiol.

40. (Previously Presented) The method of claim 39, wherein the S-nitrosothiol is S-nitroso-N-acetylcysteine, S-nitroso-captopril, S-nitroso-N-acetylpenicillamine, S-nitroso-homocysteine, S-nitroso-cysteine or S-nitroso-glutathione.

41. (Previously Presented) The method of claim 39, wherein the S-nitrosothiol is:

- (i) HS(C(R<sub>e</sub>)(R<sub>f</sub>))<sub>m</sub>SNO;
- (ii) ONS(C(R<sub>e</sub>)(R<sub>f</sub>))<sub>m</sub>R<sub>e</sub>; or
- (iii) H<sub>2</sub>N-CH(CO<sub>2</sub>H)-(CH<sub>2</sub>)<sub>m</sub>-C(O)NH-CH(CH<sub>2</sub>SNO)-C(O)NH-CH<sub>2</sub>-CO<sub>2</sub>H;

wherein m is an integer from 2 to 20; R<sub>e</sub> and R<sub>f</sub> are each independently a hydrogen, an alkyl, a cycloalkoxy, a halogen, a hydroxy, an hydroxyalkyl, an alkoxyalkyl, an arylheterocyclic ring, an alkylaryl, a cycloalkylalkyl, a heterocyclicalkyl, an alkoxy, a haloalkoxy, an amino, an alkylamino, a dialkylamino, an arylamino, a diarylamino, an alkylarylamino, an alkoxyhaloalkyl, a haloalkoxy, a sulfonic acid, a sulfonic ester, an alkylsulfonic acid, an arylsulfonic acid, an arylalkoxy, an alkylthio, an arylthio, a cycloalkylthio, a cycloalkenyl, a cyano, an aminoalkyl, an aminoaryl, an aryl, an arylalkyl, an alkylaryl, a carboxamido, a alkylcarboxamido, an arylcarboxamido, an amidyl, a carboxyl, a carbamoyl, an alkylcarboxylic acid, an arylcarboxylic acid, an alkylcarbonyl, an arylcarbonyl, an ester, a carboxylic ester, an alkylcarboxylic ester, an arylcarboxylic ester, a haloalkoxy, a sulfonamido, an alkylsulfonamido, an arylsulfonamido, a sulfonic ester, a urea, a phosphoryl, a nitro, -T-Q, or (C(R<sub>e</sub>)(R<sub>f</sub>))<sub>k</sub>-T-Q, or R<sub>e</sub> and R<sub>f</sub> taken together with the carbons to which they are attached form a carbonyl, a methanthial, a heterocyclic ring, a cycloalkyl group or a bridged cycloalkyl group; Q is -NO or -NO<sub>2</sub>; and T is independently a covalent bond, a carbonyl, an oxygen, -S(O)<sub>o</sub>- or -N(R<sub>a</sub>)R<sub>i</sub>-, wherein o is an integer from 0 to 2, R<sub>a</sub> is a lone pair of electrons, a hydrogen or an alkyl group; R<sub>i</sub> is a hydrogen, an alkyl, an aryl, an alkylcarboxylic acid, an aryl carboxylic acid, an alkylcarboxylic ester, an arylcarboxylic ester, an alkylcarboxamido, an arylcarboxamido, an alkylaryl, an alkylsulfinyl, an alkylsulfonyl, an arylsulfinyl, an arylsulfonyl, a sulfonamido, a carboxamido, a carboxylic ester, an amino alkyl, an amino aryl, -CH<sub>2</sub>-C(T-Q)(R<sub>e</sub>)(R<sub>f</sub>), or -(N<sub>2</sub>O<sub>2</sub>-)•M<sup>+</sup>, wherein M<sup>+</sup> is an organic or inorganic cation; with the proviso that when R<sub>i</sub> is -CH<sub>2</sub>-C(T-Q)(R<sub>e</sub>)(R<sub>f</sub>) or -(N<sub>2</sub>O<sub>2</sub>-)•M<sup>+</sup>; then

"-T-Q" can be a hydrogen, an alkyl group, an alkoxyalkyl group, an aminoalkyl group, a hydroxy group or an aryl group.

42-58. (Canceled)

59. (Currently Amended) A method for preventing or treating a gastrointestinal disorder, wherein the gastrointestinal disorder is Crohn's disease, ulcerative colitis, a peptic ulcer, a stress ulcer, a bleeding peptic ulcer, a duodenal ulcer, infectious enteritis, colitis, diverticulitis, gastric hyperacidity, dyspepsia, gastroparesis, Zollinger-Ellison syndrome, gastroesophageal reflux disease, a *Helicobacter Pylori* associated disease, short-bowel syndrome, or a hypersecretory state associated with systemic mastocytosis or basophilic leukemia and hyperhistaminemia; for facilitating ulcer healing, or for decreasing the recurrence of an ulcer in a patient in need thereof comprising administering to the patient a therapeutically effective amount of at least one proton pump inhibitor or a pharmaceutically acceptable salt thereof, and at least one compound that donates, transfers or releases nitric oxide, induces the production of endogenous nitric oxide or endothelium-derived relaxing factor, stimulates endogenous synthesis of nitric oxide or is a substrate for nitric oxide synthase.

60. (Previously Presented) The method of claim 59, further comprising administering at least one antacid.

61-65. (Canceled)

66. (Previously Presented) A method for decreasing or reversing gastrointestinal toxicity or facilitating ulcer healing resulting from administration of a nonsteroidal antiinflammatory drug and/or a selective COX-2 inhibitor to a patient comprising administering to a patient in need thereof a therapeutically effective amount of at least one proton pump inhibitor compound, and at least one compound that donates, transfers or releases nitric oxide, induces the production of endogenous nitric oxide or endothelium-derived relaxing factor, stimulates endogenous synthesis of nitric oxide or is a substrate for nitric oxide synthase, and, optionally, at least one nonsteroidal antiinflammatory drug and/or selective COX-2 inhibitor; wherein the at least one compound that donates, transfers or releases nitric oxide, induces the production of endogenous nitric oxide or endothelium-derived relaxing factor, stimulates endogenous synthesis of nitric oxide or is a substrate for nitric oxide synthase and the at least one nonsteroidal antiinflammatory drug and/or selective COX-2 inhibitor are at least two different

compounds.

67. (Canceled)

68. (Previously Presented) A method for treating an infection caused by *Helicobacter pylori* comprising administering to a patient in need thereof a therapeutically effective amount of at least one acid degradable antibacterial compound, at least one proton pump inhibitor compound or a pharmaceutically acceptable salt thereof, and at least one compound that donates, transfers or releases nitric oxide, induces the production of endogenous nitric oxide or endothelium-derived relaxing factor, stimulates endogenous synthesis of nitric oxide or is a substrate for nitric oxide synthase.

69-78. (Canceled)

79. (Currently Amended) The method of claim 50, 59, 64, 66, 68 or 94, wherein the at least one proton pump inhibitor compound or the pharmaceutically acceptable salt thereof, and the at least one compound that donates, transfers or releases nitric oxide, induces the production of endogenous nitric oxide or endothelium-derived relaxing factor, stimulates endogenous synthesis of nitric oxide or is a substrate for nitric oxide synthase are administered separately.

80. (Currently Amended) The method of claim 50, 59, 64, 66, 68, or 94, wherein the at least one proton pump inhibitor compound or the pharmaceutically acceptable salt thereof, and the at least one compound that donates, transfers or releases nitric oxide, induces the production of endogenous nitric oxide or endothelium-derived relaxing factor, stimulates endogenous synthesis of nitric oxide or is a substrate for nitric oxide synthase are administered together in the form of a composition.

81. (Currently Amended) The method of claim 50, 59, 64, 66, 68 or 94, wherein the at least one proton pump inhibitor compound or a pharmaceutically acceptable salt thereof, and the at least one compound that donates, transfers or releases nitric oxide, induces the production of endogenous nitric oxide or endothelium-derived relaxing factor, stimulates endogenous synthesis of nitric oxide or is a substrate for nitric oxide synthase are administered orally, buccally, topically, by injection, by inhalation, or by transdermal application.

82. (Previously Presented) The method of claim 81, wherein the at least one proton pump inhibitor compound or a pharmaceutically acceptable salt thereof, and the at least one compound that donates, transfers or releases nitric oxide, induces the production of endogenous

nitric oxide or endothelium-derived relaxing factor, stimulates endogenous synthesis of nitric oxide or is a substrate for nitric oxide synthase are administered orally in a solid dosage form or a liquid dosage form.

83. (Previously Presented) The method of claim 82, wherein the solid dosage form is a capsule, a tablet, an effervescent tablet, a chewable tablet, a pill, a powder, a sachet, a granule or a gel.

84. (Previously Presented) The method of claim 82, wherein the liquid dosage form is an emulsion, a solution, a suspension, a syrup, or an elixir.

85. (Previously Presented) A method for decreasing or reversing gastrointestinal toxicity or facilitating ulcer healing resulting from administration of a nonsteroidal antiinflammatory drug and/or a selective COX-2 inhibitor in a patient in need thereof comprising administering a therapeutically effective amount of at least one proton pump inhibitor compound and at least one S-nitrosothiol.

86. (Previously Presented) The method of claim 85, further comprising administering a therapeutically effective amount of at least one nonsteroidal antiinflammatory drug and/or selective COX-2 inhibitor.

87. (Currently Amended) A method for treating ~~or preventing~~ an ulcer in a patient in need thereof comprising administering a therapeutically effective amount of at least one proton pump inhibitor and at least one S-nitrosothiol.

88. (Previously Presented) The method of claim 87, wherein the ulcer is a peptic ulcer, a stress ulcer, a bleeding peptic ulcer, a duodenal ulcer, or gastritis.

89. (Currently Amended) A method for ~~preventing or treating a gastrointestinal disorder, wherein the gastrointestinal disorder is~~ Crohn's disease, ulcerative colitis, a peptic ulcer, a stress ulcer, a bleeding peptic ulcer, a duodenal ulcer, infectious enteritis, colitis, diverticulitis, gastric hyperacidity, dyspepsia, gastroparesis, Zollinger-Ellison syndrome, gastroesophageal reflux disease, a *Helicobacter Pylori* associated disease, short-bowel syndrome, or a hypersecretory state associated with systemic mastocytosis or basophilic leukemia and hyperhistaminemia; for facilitating ulcer healing, or for decreasing the recurrence of an ulcer in a patient in need thereof comprising administering to the patient a therapeutically

effective amount of at least one proton pump inhibitor or a pharmaceutically acceptable salt thereof, and at least one S-nitrosothiol.

90. (Previously Presented) The method of claim 85, 87 or 89, wherein the S-nitrosothiol is S-nitroso-N-acetylcysteine, S-nitroso-captopril, S-nitroso-N-acetylpenicillamine, S-nitroso-homocysteine, S-nitroso-cysteine or S-nitroso-glutathione.

91. (Previously Presented) The method of claim 85, 87 or 89, wherein the S-nitrosothiol is:

- (i)  $\text{HS}(\text{C}(\text{R}_e)(\text{R}_f))_m\text{SNO}$ ;
- (ii)  $\text{ONS}(\text{C}(\text{R}_e)(\text{R}_f))_m\text{R}_e$ ; or
- (iii)  $\text{H}_2\text{N}-\text{CH}(\text{CO}_2\text{H})-(\text{CH}_2)_m-\text{C}(\text{O})\text{NH}-\text{CH}(\text{CH}_2\text{SNO})-\text{C}(\text{O})\text{NH}-\text{CH}_2-\text{CO}_2\text{H}$ ;

wherein m is an integer from 2 to 20;  $\text{R}_e$  and  $\text{R}_f$  are each independently a hydrogen, an alkyl, a cycloalkoxy, a halogen, a hydroxy, an hydroxyalkyl, an alkoxyalkyl, an arylheterocyclic ring, an alkylaryl, a cycloalkylalkyl, a heterocyclicalkyl, an alkoxy, a haloalkoxy, an amino, an alkylamino, a dialkylamino, an arylamino, a diarylamino, an alkylarylamino, an alkoxyhaloalkyl, a haloalkoxy, a sulfonic acid, a sulfonic ester, an alkylsulfonic acid, an arylsulfonic acid, an arylalkoxy, an alkylthio, an arylthio, a cycloalkylthio, a cycloalkenyl, a cyano, an aminoalkyl, an aminoaryl, an aryl, an arylalkyl, an alkylaryl, a carboxamido, a alkylcarboxamido, an arylcarboxamido, an amidyl, a carboxyl, a carbamoyl, an alkylcarboxylic acid, an arylcarboxylic acid, an alkylcarbonyl, an arylcarbonyl, an ester, a carboxylic ester, an alkylcarboxylic ester, an arylcarboxylic ester, a haloalkoxy, a sulfonamido, an alkylsulfonamido, an arylsulfonamido, a sulfonic ester, a urea, a phosphoryl, a nitro, -T-Q, or  $(\text{C}(\text{R}_e)(\text{R}_f))_k\text{-T-Q}$ , or  $\text{R}_e$  and  $\text{R}_f$  taken together with the carbons to which they are attached form a carbonyl, a methanthial, a heterocyclic ring, a cycloalkyl group or a bridged cycloalkyl group; Q is -NO or -NO<sub>2</sub>; and T is independently a covalent bond, a carbonyl, an oxygen, -S(O)<sub>o</sub>- or -N(R<sub>a</sub>)R<sub>i</sub>-, wherein o is an integer from 0 to 2, R<sub>a</sub> is a lone pair of electrons, a hydrogen or an alkyl group; R<sub>i</sub> is a hydrogen, an alkyl, an aryl, an alkylcarboxylic acid, an aryl carboxylic acid, an alkylcarboxylic ester, an arylcarboxylic ester, an alkylcarboxamido, an arylcarboxamido, an alkylaryl, an alkylsulfinyl, an alkylsulfonyl, an arylsulfinyl, an arylsulfonyl, a sulfonamido, a carboxamido, a carboxylic ester, an amino alkyl, an amino aryl, -CH<sub>2</sub>-C(T-Q)(R<sub>e</sub>)(R<sub>f</sub>), or -(N<sub>2</sub>O<sub>2</sub>-)•M<sup>+</sup>, wherein M<sup>+</sup> is an organic or inorganic cation; with the proviso that when R<sub>i</sub> is -CH<sub>2</sub>-C(T-Q)(R<sub>e</sub>)(R<sub>f</sub>) or -(N<sub>2</sub>O<sub>2</sub>-)•M<sup>+</sup>; then

"-T-Q" can be a hydrogen, an alkyl group, an alkoxyalkyl group, an aminoalkyl group, a hydroxy group or an aryl group.

92. (Currently Amended) The method of claim 85, 87 or 89, wherein the at least one proton pump inhibitor compound is a substituted benzimidazole, a substituted quinoline, a substituted pyrimidine, a substituted thiadiazole, a substituted sulfinylnicotinamide, a substituted thienoimidazole, or a substituted imidazopyridine.

93. (Currently Amended) The method of claim 91, 92, wherein the substituted benzimidazole is omeprazole, lansoprazole, pantoprazole, rabeprazole, leminoprazole, timoprazole, tenatoprazole, disulprazole, esomeprazole, 2-(2-benzimidazolyl)-pyridine, a tricyclic imidazole, a thienopyridine benzimidazole, a fluoroalkoxy substituted benzimidazole, a dialkoxy benzimidazole, a N-substituted 2-(pyridylalkenesulfinyl) benzimidazole, a cycloheptenepyridine, a 5-pyrrolyl-2-pyridylmethylsulfinyl benzimidazole, a alkylsulfinyl benzimidazole, a fluoro-pyridylmethylsulfinyl benzimidazole, an imidazo(4,5-b)pyridine, RO 18-5362 or IY 81149; wherein the substituted quinoline is a 4-amino-3-carbonyl quinoline, a 4-amino-3-acylnaphthyridine, a 4-aminoquinoline, a 4-amino-3-acylquinoline or a 3-butyryl-4-(2-methylphenylamino)-8-(2-hydroxyethoxy)quinoline; wherein the substituted pyrimidine is a substituted quinazoline, a tetrahydroisoquinolin-2-yl pyrimidine or YH 1885; wherein the substituted thiadiazole is 3-substituted 1,2,4-thiadiazolo(4,5-a) benzimidazole or a 3-substituted imidazo(1,2-d)-thiadiazole; wherein the substituted sulfinylnicotinamide is a 2-sulfinylnicotinamide; wherein the substituted thienoimidazole is a pyridylsulfinylbenz imidazole, a pyridylsulfinyl thieno imidazole, a theinoimidazole-toluidine, a 4,5-dihydrooxazazole, a thienoimidazole-toluidine or Hoe-731; wherein the substituted imidazopyridine is a imidazo(1,2-a)pyridine, a pyrrolo(2,3-b)pyridine or a pharmaceutically acceptable salt thereof.

94. (Currently Amended) A method for treating ~~or preventing a gastrointestinal disorder selected from the group consisting of~~ Crohn's disease, ulcerative colitis, a stress ulcer, infectious enteritis, colitis, diverticulitis, gastric hyperacidity, gastroparesis, Zollinger-Ellison syndrome, gastroesophageal reflux disease, a *Helicobacter Pylori* associated disease, short-bowel syndrome, or and a hypersecretory state associated with systemic mastocytosis or basophilic leukemia and hyperhistaminemia in a patient in need thereof comprising administering to the patient a therapeutically effective amount of at least one proton pump

inhibitor or a pharmaceutically acceptable salt thereof, and at least one compound that donates, transfers or releases nitric oxide, induces the production of endogenous nitric oxide or endothelium-derived relaxing factor, stimulates endogenous synthesis of nitric oxide or is a substrate for nitric oxide synthase.

95. (Previously Presented) The method of claim 85, 87 or 89, wherein the at least one proton pump inhibitor compound or the pharmaceutically acceptable salt thereof, and the at least one S-nitrosothiol are administered separately.

96. (Previously Presented) The method of claim 85, 87 or 89, wherein the at least one proton pump inhibitor compound or the pharmaceutically acceptable salt thereof, and the at least one S-nitrosothiol are administered together in the form of a composition.

97. (Previously Presented) The method of claim 85, 87 or 89, wherein the at least one proton pump inhibitor compound or a pharmaceutically acceptable salt thereof, and the at least one S-nitrosothiol are administered orally, buccally, topically, by injection, by inhalation, or by transdermal application.

98. (Previously Presented) The method of claim 85, 87 or 89, wherein the at least one proton pump inhibitor compound or a pharmaceutically acceptable salt thereof, and the at least one S-nitrosothiol are administered orally in a solid dosage form or a liquid dosage form.

99. (Previously Presented) The method of claim 98, wherein the solid dosage form is a capsule, a tablet, an effervescent tablet, a chewable tablet, a pill, a powder, a sachet, a granule or a gel.

100. (Previously Presented) The method of claim 98, wherein the liquid dosage form is an emulsion, a solution, a suspension, a syrup, or an elixir.

101-118. (Canceled)